IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	Confirm. No.: 1170
OHLSSON et al	Atty. Ref.: 2380-486
Serial No. 09/931,280	TC/A.U.: 2686
Filed: August 17, 2001	Examiner: Fox, B.

For: PRELIMINARY PERFORMANCE OF HANDOVER FUNCTION IN TELECOMMUNICATIONS SYSTEM

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May 29, 2007

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s).

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Respectfully submitted,

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SUBJECT MATTER OF THE APPEAL

The technology relates to "handover" of a cellular call ("connection") involving a mobile station, the handover of the call being from a source base station to a destination base station. Applicants particularly provide an anticipatory mechanism for a handover sequence in which a time-intensive "preliminary portion" of the handover sequence can be first performed (e.g., before the need for handover is definitively determined). The "preliminary portion" of the handover sequence is then followed (e.g., when the need for the handover *is* definitively determined) by the "another portion" of the handover sequence. The different portions of the handover sequence are initiating by different measurement reports of signal strength of a pilot signal from the destination base station as perceived by the mobile station involved in the handover. Bifurcating the handover sequence into two portions essentially allows Applicants to get a "jump" on the handover process.

THE REJECTION

Claims 1, 9, 18 and 20 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 6,009,328 to Muszynski in view of U.S. Patent 6,546,248 to Jou et al and U.S. Patent 6,246,673 to Tiedemann, Jr. et al. Claims 2, 4, 6-8, 10, 12 and 14-17 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 6,009,328 to Muszynski in view of U.S. Patent 6,546,248 to Jou et al. Claims 22 and 23 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 6,009,328 to Muszynski in view of U.S. Patent 6,546,248 to Jou et al. and US Patent 5,978,679 to Agre.

ERRORS IN THE REJECTION

The three-way (and, for some claims four-way) combination does not teach or suggest Applicants' requirement (see independent claims 1, 2, 9, and 10) that a preliminary portion of another portion of a handover sequence be initiated upon receipt of respective first and second measurement reports, both the first and second measurement reports having a signal quality measurement of a pilot signal from the destination base station as received by the specific mobile involved in the handover. The final office action is in error in overlooking the deficiencies of the references with respect to the claimed subject matter. Selected deficiencies are listed below by way of example.

1. Measurement Reports of Pilot Signal from Destination Base Station.

Independent claims 1, 2, 9, and 10 clearly specify (e.g., in the last paragraphs of claims 1 and 2, for example) that the first measurement report from the specified mobile station and the second measurement report from the specified mobile station include differing values of a signal quality measurement of a pilot signal from the destination base station as received by the specified mobile station. In other words, the measurement reports which initiate the two distinct portions of the handover sequence are based on a pilot signal from the same base station – the destination base station.

The office action apparently interprets U.S. Patent 6,009,328 to Muszynski as describing a "preliminary portion of a handover sequence" in col. 9, lines 10+, and the "another portion of the handover sequence" as being described in col. 9, lines 60+. But the two referenced portions of U.S. Patent 6,009,328 to Muszynski are respectively based on pilot signals from different base stations. The operation of Muszynski (described in col. 9, lines 60+) which allegedly corresponds to the "another portion of the handover sequence" occurs because the "pilot signal coming from BS 24 has weakened below a predetermined threshold…thus the leg 84-74 shall be removed … ." In other words, the pilot signal which triggers the activities performed by col. 9, lines 60+ of Muszynski is the pilot signal from the source base station 24, not from destination base station 22. Thus, Muszynski cannot anticipate or render Applicants' claims unpatentable.

Neither does U.S. Patent 6,546,248 to Jou et al. support the rejection. The final office action alleges that U.S. Patent 6,546,248 to Jou et al. discloses that "a pilot signal measurement message (PSSM) contains a number of different pilots" (citing col. 8, lines 35 – 62). What Jou teaches in col. 8 is that "in certain embodiments… it would be preferably to transmit pilot strength…for each pilot listed in the PSMM." Pilot strength measurements for pilots from plural base stations is irrelevant to Applicants' claims which (as explained above) focus on measurement reports of a pilot signal from one base station – the destination base station. Applicant's measurement reports are not only not for plural base stations, but are reported at different times (see the claim phrase "and then

subsequently"). Each of Jou's PSMM reports instead pertain plural base stations at one point in time, not at subsequent points in time.

US Patent 5,978,679 to Agre may teach (in col. 8, lines 50+) a series of measurement reports, but the Agre measurement reports serve to change (when and as appropriate) the classification of a base station regarding elibility for handover involvement, e.g., into a candidate set (col. 8, line 55). The "second strength measurement report" of Agre col. 8, line 60+ is significant only from the perspective that it occurs when the pilot strength surpasses that of another station with which an RF interface has been established. Clearly Agre's actual handover is triggered only by one pilot strength measurement (col. 9, lines 4+), and once initiated the Agre handover is not bifurcated into portions whose initiating is dependent upon subsequent measurements.

2. Handover Sequence Portions involve Same Connection Leg

The final office action overlooks features of dependent claims 22 and 23 that both the preliminary portion of the handover sequence and the another portion of the handover sequence are for establishing a connection leg between the destination base station and the specified mobile station. In other words, both the preliminary portion of the handover sequence and the another portion of the handover sequence are performed for establishing the same connection leg.

The new dependent claims 22 and 23 thus manifestly distinguish over U.S. Patent 6,009,328 to Muszynski. (Again note that the office action interprets Muszynski as describing a "preliminary portion of a handover sequence" in col. 9, lines 10+, and the "another portion of the handover sequence" as being described in col. 9, lines 60+). The two referenced portions of U.S. Patent 6,009,328 to Muszynski pertain to *different* connection legs, not the same leg. In particular, Muszynski col. 9, lines 10+ describe *set up of leg 82-72-50*, while Muszynski col. 9, lines 60+ describe *tear down or dropping of leg 74-84*. The leg 82-72-50 is for base station 22; the leg 74-84 is for base station 24.

3. No Reference Teaches The Preliminary Portion of the Handover Sequence

The final office action properly admits that the combination of U.S. Patent 6,009,328 to Muszynski and U.S. Patent 6,546,248 to Jou et al. does not teach the claimed preliminary portion of a handover sequence including uplink radio signals with respect to the specified mobile. However, contrary to assertions of the final office action, neither does U.S. Patent 6,246,673 to Tiedemann.

Actions taken by Tiedemann in the passage cited (col. 17, lines 28 – 49) all appear to occur after a decision has already been made to perform handover. The passage describes a flowchart showing steps of a method of establishing handoff of a mobile station from an asynchronous serving base station (BTS1) to a synchronous target base station (BTS2). See, col. 16, lines 60+. Tiedemann's use of a pilot signal as described in this passage is not to trigger a bifurcated portion of a handover, but rather to locate the pilot signal so that the mobile station (coming from an asynchronous serving base station) can have an accurate estimate of the CDMA system time for a synchronous base station (see col. 17, lines 8 – 10). Use of such timing error correction as described by Tiedemann may be a matter of synchronization, but is not taught by Tiedemann to be in a separate portion of a handover sequence which is separately triggered by a different (subsequent) measurement report of pilot signal strength.

4. Detailed Acts of Handover Sequence Not Taught or Suggested

The final office action also fails to take into consideration the conjunctive limitations of dependent claims 18 and 20 regarding the detailed acts of the preliminary portion of the handover sequence, or of dependent claims 19 and 21 regarding the detailed acts of the another portion of the handover sequence.